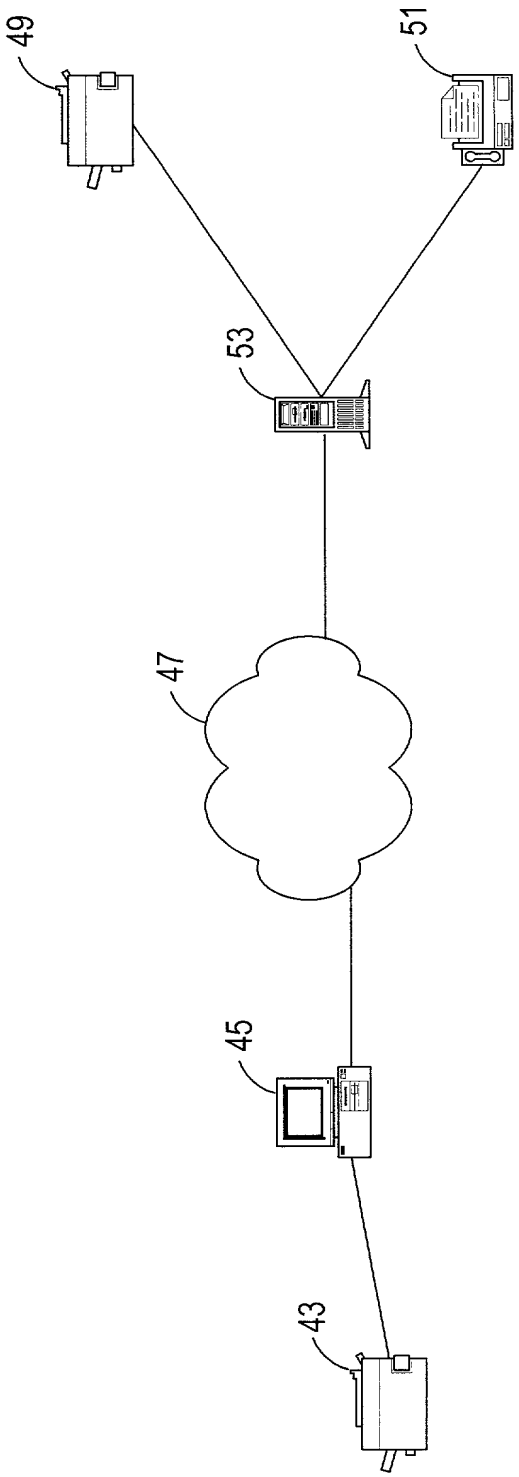

FIG. 1

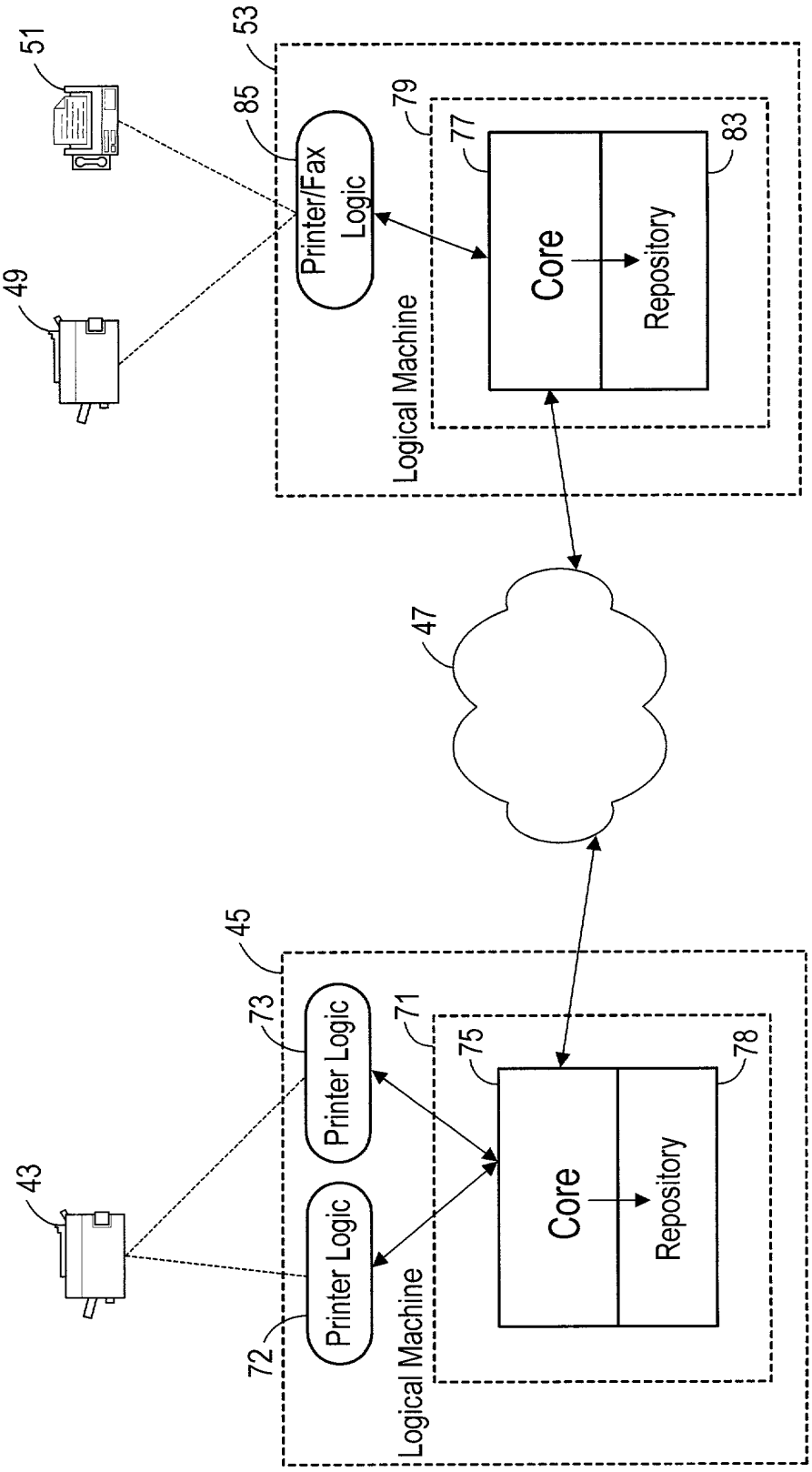
51
53
85
79
77
83
Printer/Fax Logic
Core
Repository
49
Logical Machine
47
45
73
71
75
78
Printer Logic
Core
Repository
43
Printer Logic
72
Logical Machine

FIG. 2

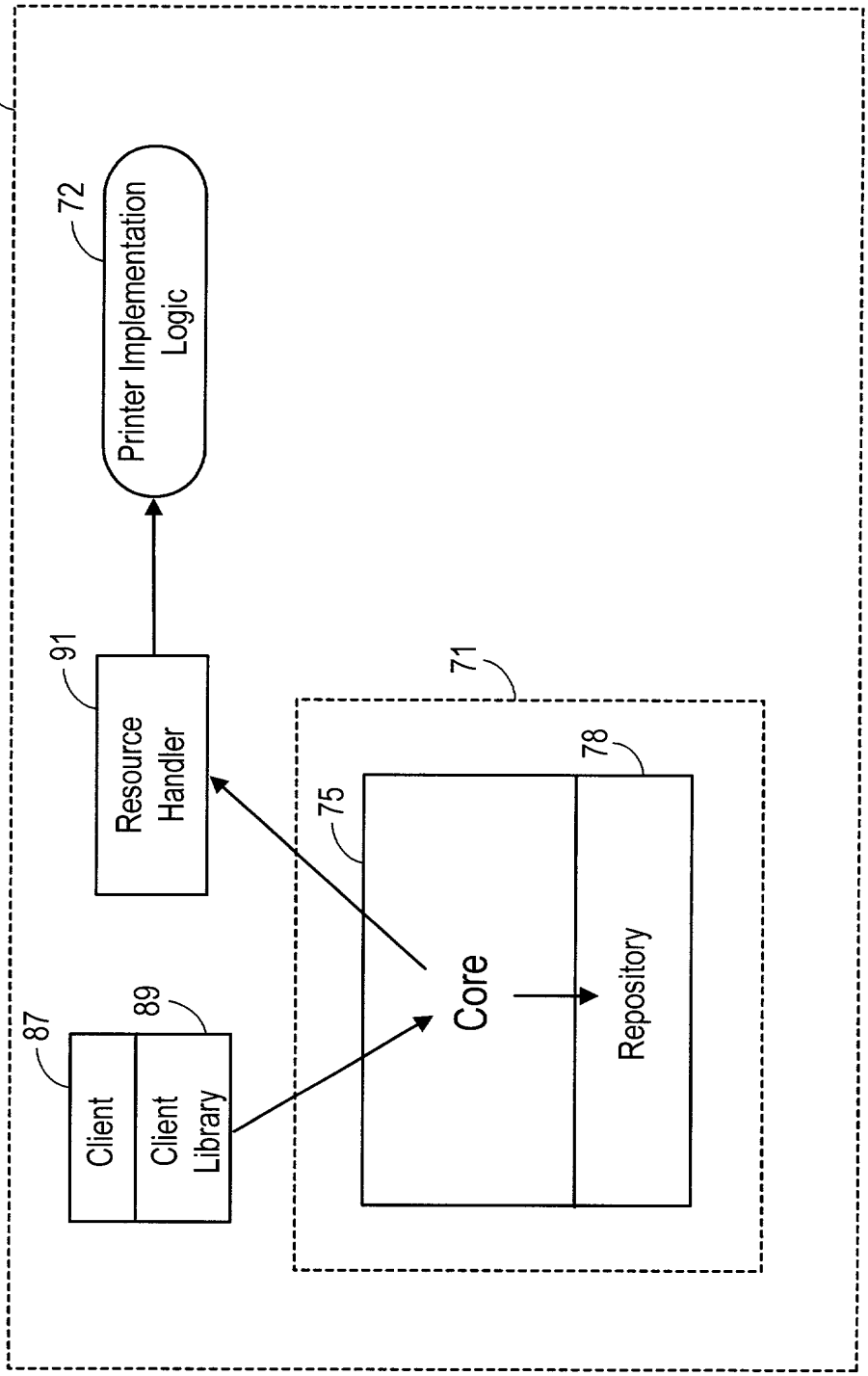
45
72
Printer Implementation Logic
91
Resource Handler
71
78
75
Core
Repository
87
89
Client
Client Library

FIG. 3A

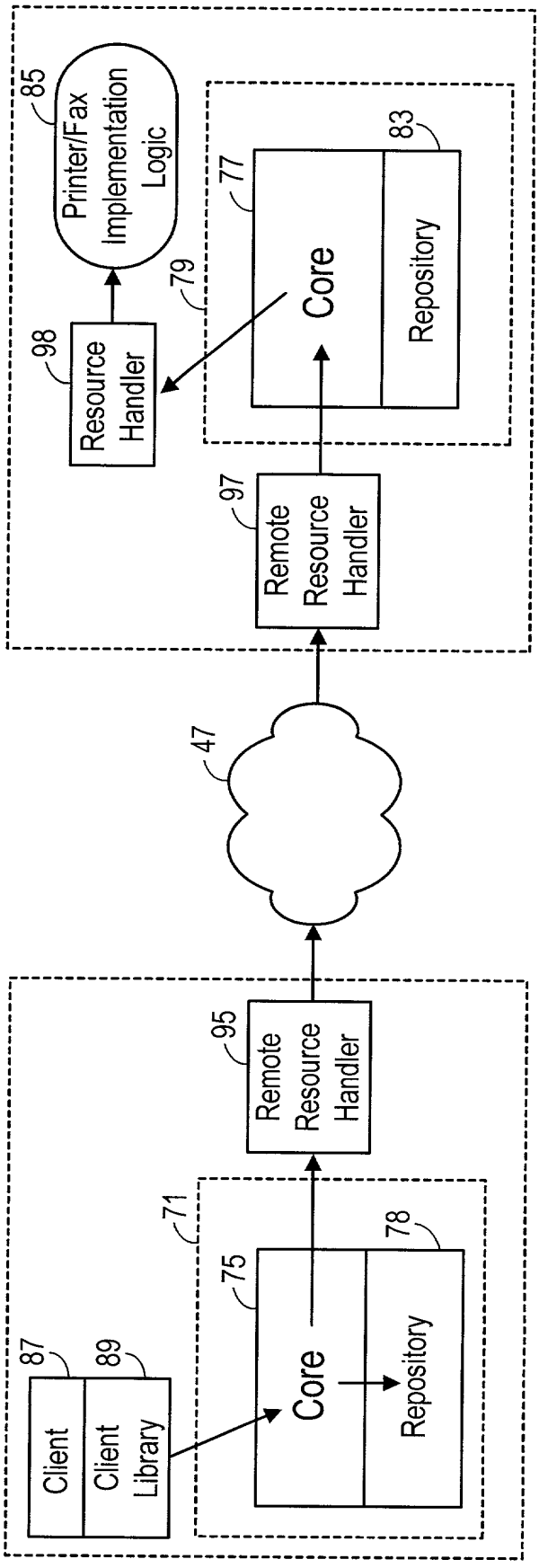
Client
Client Library
87
89
Core
Repository
75
78
71
Remote Resource Handler
95
47
Remote Resource Handler
97
Core
Repository
77
83
Resource Handler
98
79
Printer/Fax Implementation Logic
85

FIG. 3B

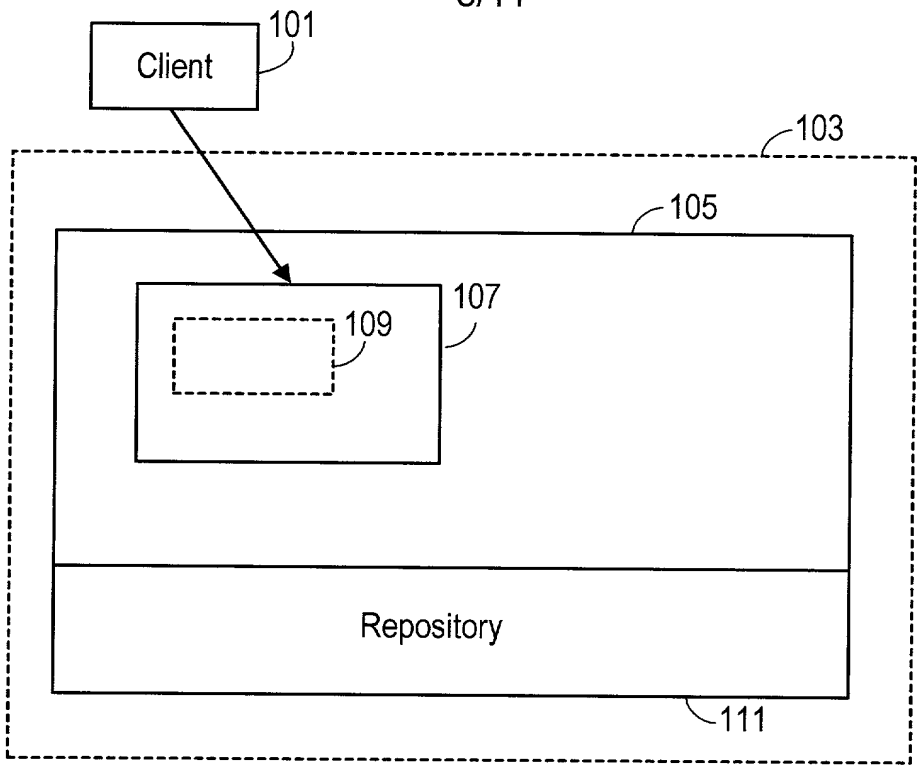
Client
101
103
105
107
109
Repository
111

FIG. 4

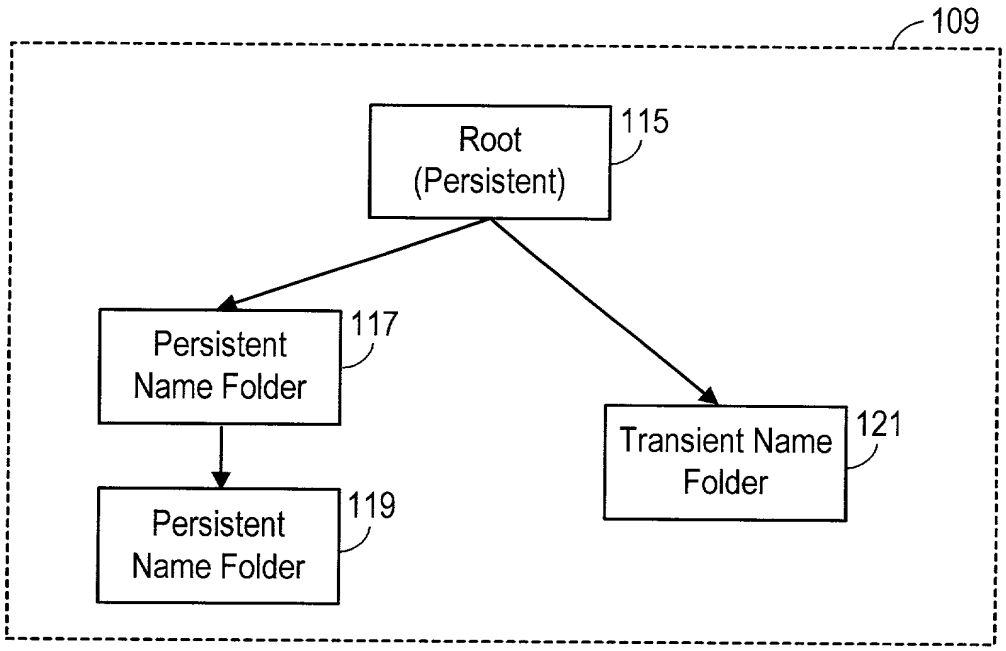
109
Root
(Persistent)
115
Persistent
Name Folder
117
Persistent
Name Folder
119
Transient Name
Folder
121

FIG. 5

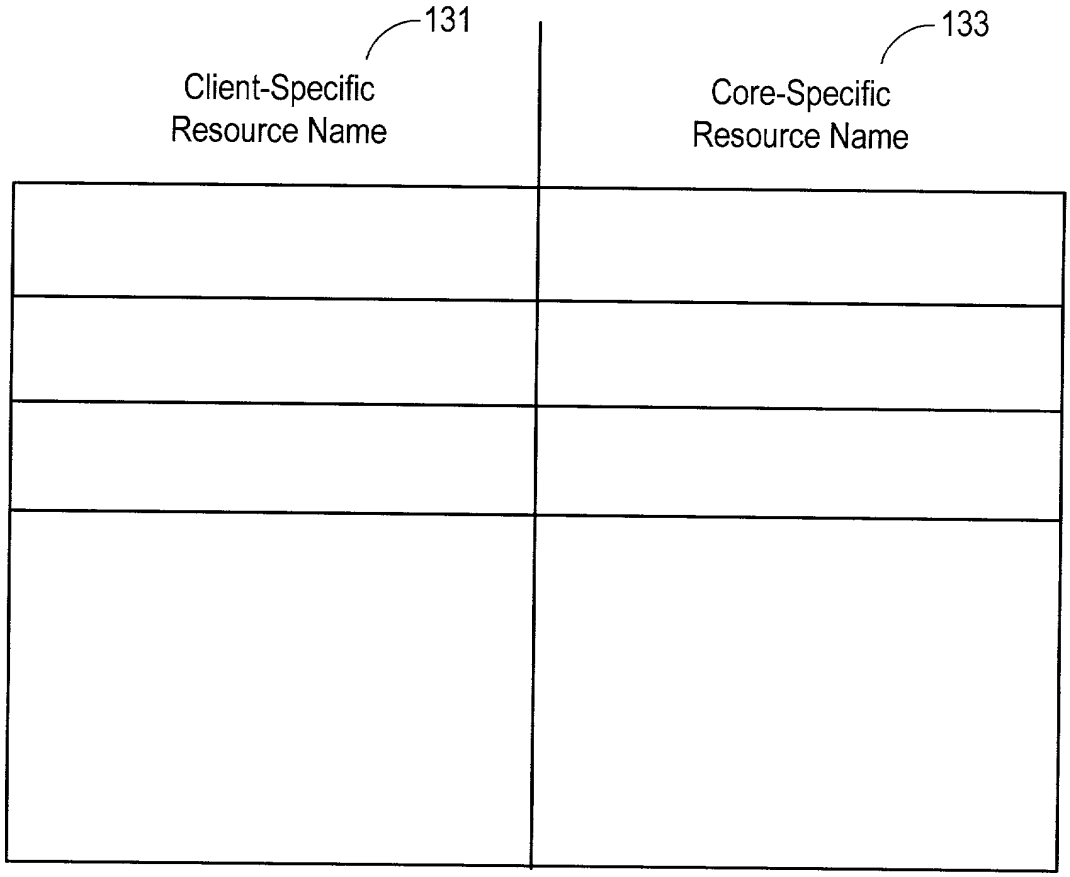
131
Client-Specific
Resource Name
133
Core-Specific
Resource Name

FIG. 6

```
.
.
.
While (not done())                                    149
{
   begin scope;                    153
   create resource 1;                                 151
   find resource 2;
   use resource 2;
   end scope;
                                   155
}
.
.
.
```

FIG. 7

```
.
.
.
While (not  done())                                   175
{
   begin first scope;              177
   create resource 1;

   begin second scope;             179
   greate resource 3;
   find resource 4;                                   181
   save resource 4 "printer" in          184          183
            persistent-folder;
   end second scope;
                                   185
   find resource 2;
   use resource 2;
   end first scope;
                                   187
}
.
.
.
```

FIG. 8

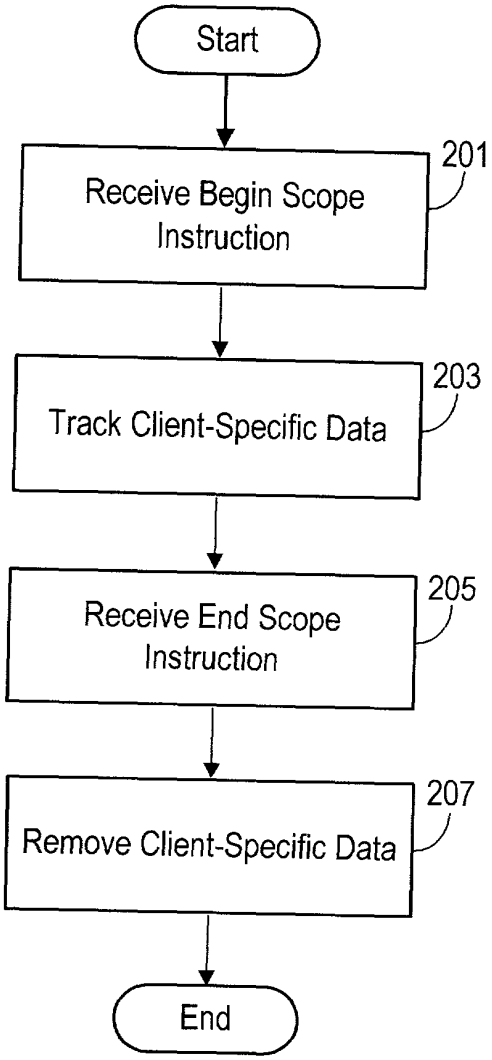

FIG. 9A

2004-10-07 15:26:37.0

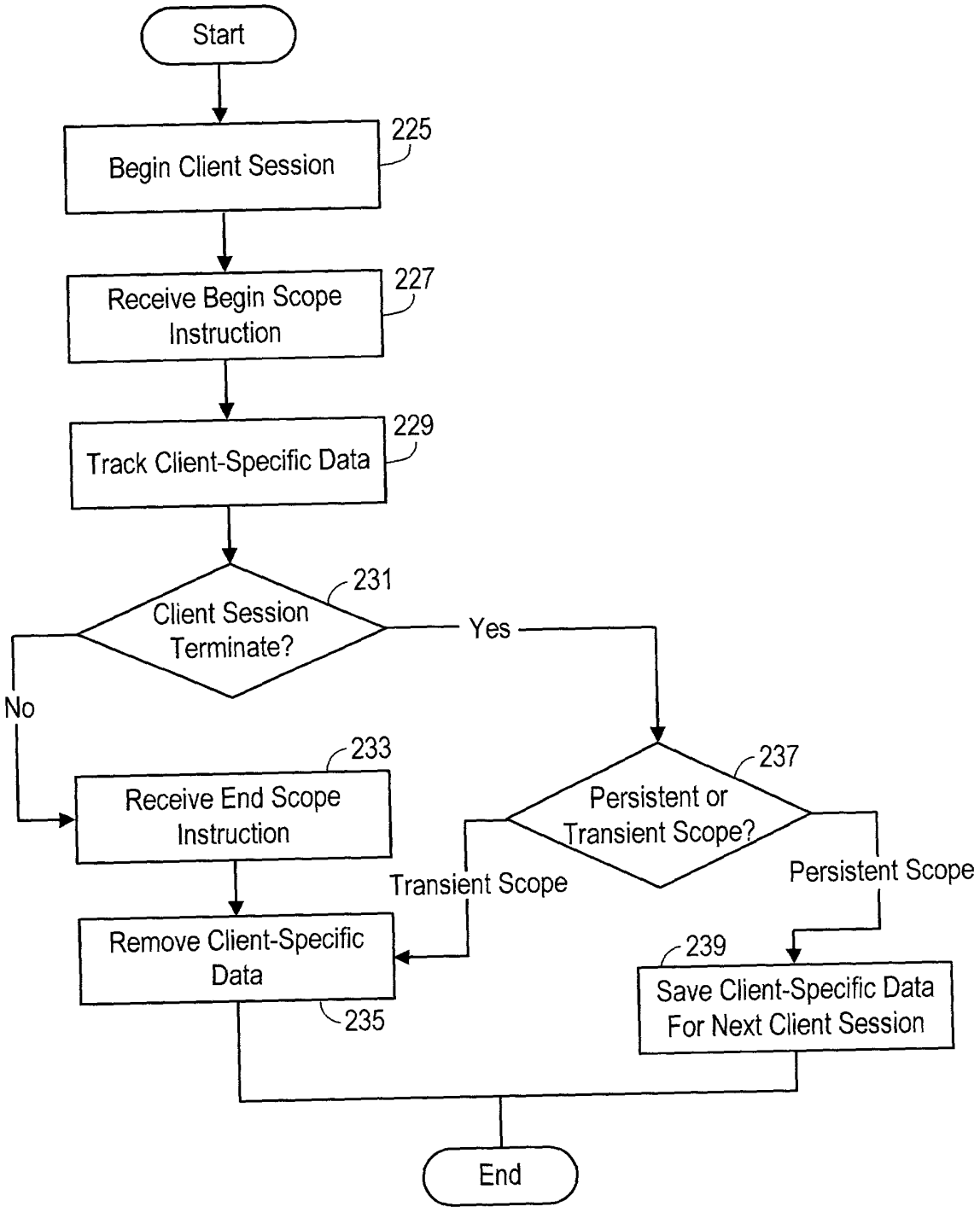
Start
Begin Client Session
225
Receive Begin Scope Instruction
227
Track Client-Specific Data
229
Client Session Terminate?
231
Yes
No
Receive End Scope Instruction
233
Persistent or Transient Scope?
237
Transient Scope
Persistent Scope
Remove Client-Specific Data
235
Save Client-Specific Data For Next Client Session
239
End

FIG. 9B

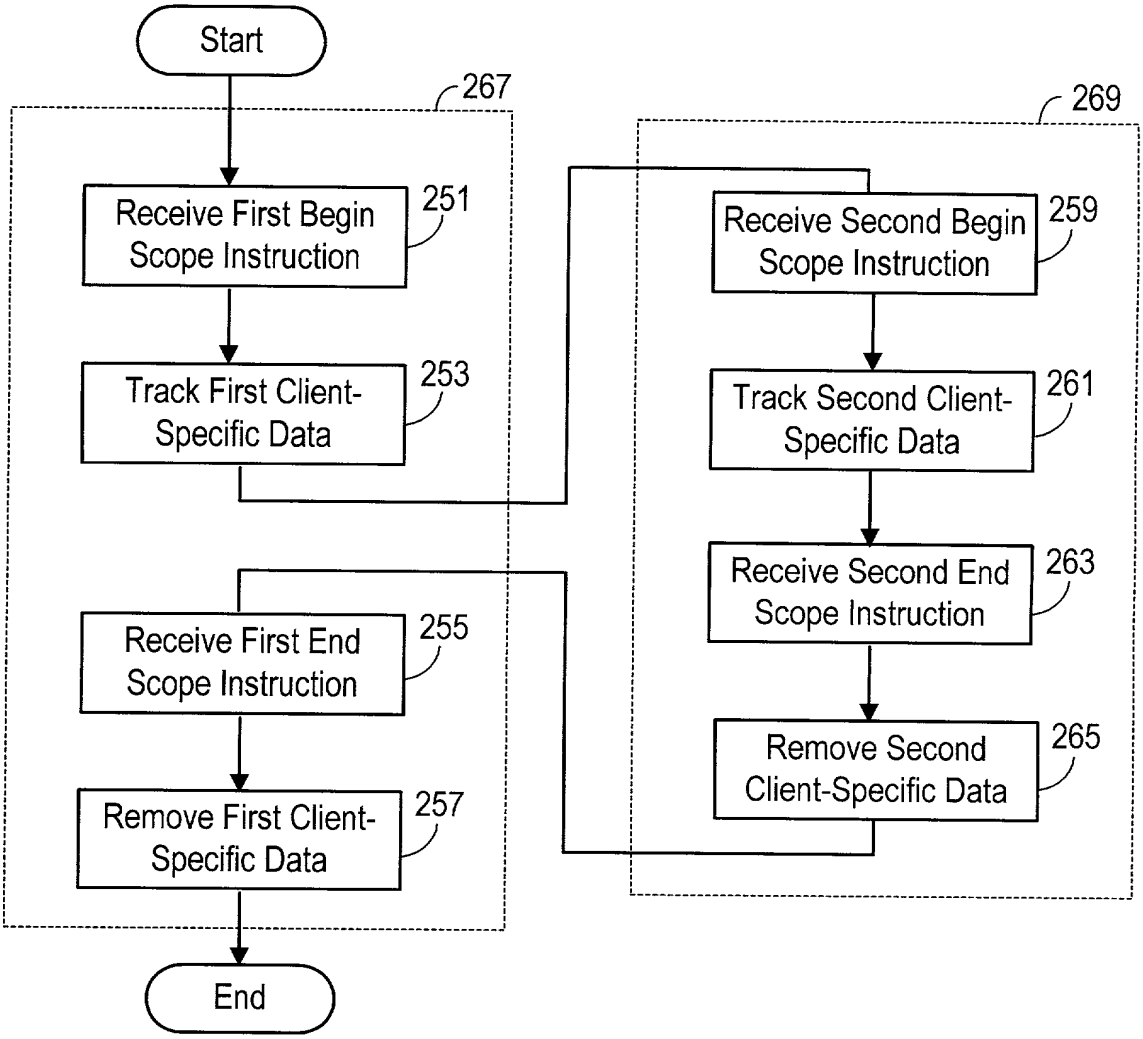
Start
267
269
Receive First Begin Scope Instruction
251
Track First Client-Specific Data
253
Receive First End Scope Instruction
255
Remove First Client-Specific Data
257
End
Receive Second Begin Scope Instruction
259
Track Second Client-Specific Data
261
Receive Second End Scope Instruction
263
Remove Second Client-Specific Data
265

FIG. 9C

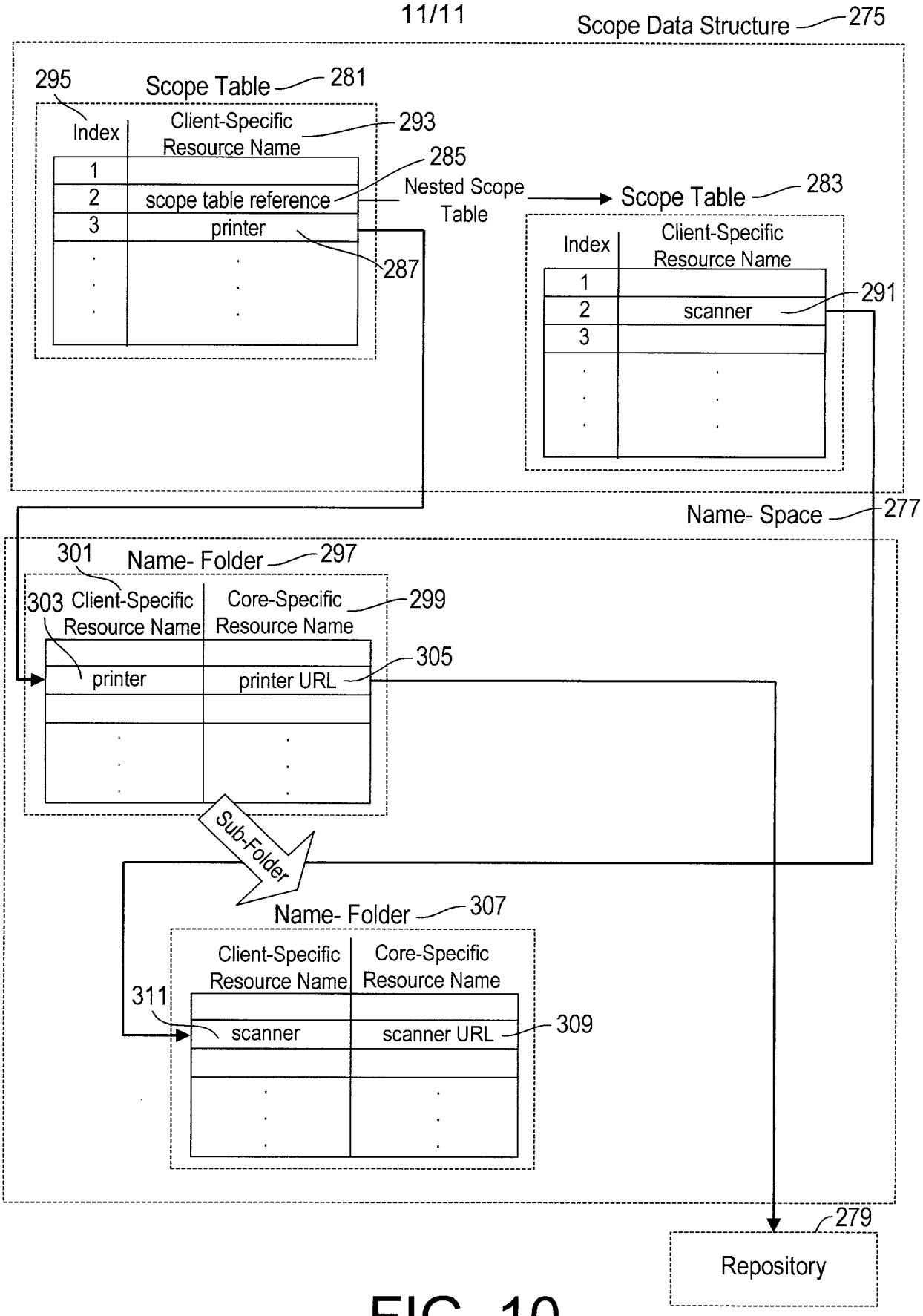
Scope Data Structure
275
295
Scope Table
281
Index
Client-Specific Resource Name
293
1
2
scope table reference
285
3
printer
287
Nested Scope Table
Scope Table
283
Index
Client-Specific Resource Name
1
2
scanner
291
3
Name- Space
277
301
Name- Folder
297
303
Client-Specific Resource Name
Core-Specific Resource Name
299
printer
printer URL
305
Sub-Folder
Name- Folder
307
Client-Specific Resource Name
Core-Specific Resource Name
311
scanner
scanner URL
309
279
Repository

FIG. 10